# A new species of the weevil genus *Ceutorhynchus* Germar (Coleoptera: Curculionidae) from China

# Новый вид жуков-долгоносиков рода *Ceutorhynchus* Germar (Coleoptera: Curculionidae) из Китая

B.A. KOROTYAEV

Б.А. Коротяев

B.A. Korotyaev, Zoological Institute, Russian Academy of Sciences, 1 Universitetskaya Emb., St Petersburg 199034, Russia. E-mail: baris@zin.ru

Ceutorhynchus (Heorhynchus) catenulatus sp. nov. is described from China (Sichuan). It differs from the two known members of the subgenus Heorhynchus Korotyaev, 1999 in the smaller size, coarsely catenulate elytra, deeper median sulcus and sharper lateral tubercles on the pronotum, usually rufous antennae and tarsi, and truncate apically aedeagus. From C. ibukianus Hustache, 1916, the new species is distinguished, in addition, by the black colour without clear blue sheen. Ceutorhynchus philippovi Korotyaev, 1980, described from the south of the Russian Far East, is synonymized with C. subcoeruleipennis Voss, 1958 described from China.

Описан новый вид жуков-долгоносиков *Ceutorhynchus* (*Heorhynchus*) *catenulatus* **sp. nov.** из Китая (Сычуань). Новый вид отличается от двух ранее известных видов подрода *Heorhynchus* Korotyaev, 1999 мелкими размерами, грубо бороздчатыми надкрыльями, более глубокой срединной бороздкой и более острыми боковыми бугорками переднеспинки, обычно рыжими усиками и лапками, а также обрубленным на вершине эдеагусом. От *C. ibukianus* Hustache, 1916 новый вид отличается, кроме того, черной окраской без отчетливого синего блеска. *Ceutorhynchus philippovi* Korotyaev, 1980, описанный с юга Дальнего Востока России, сведен в синонимы к *C. subcoeruleipennis* Voss, 1958, описанному из Китая.

**Key words**: weevils, taxonomy, China, Coleoptera, Curculionidae, Ceutorhynchinae, *Ceutorhynchus* (*Heorhynchus*), new species

**Ключевые слова**: долгоносики, таксономия, Китай, Coleoptera, Curculionidae, Ceutorhynchinae, *Ceutorhynchus* (*Heorhynchus*), новый вид

#### INTRODUCTION

The subgenus *Heorhynchus* Korotyaev (Alonso-Zarazaga & Lyal, 1999: 11) includes three known species from the Far East. The distinguishing characters of this subgenus, originally described as a separate genus (Korotyaev, 1996), are vague, but they apply to an apparently natural taxon endemic to this region. The type species is associated with the plant family Brassicaceae which is typical of the vast majority of *Ceutorhynchus*. As the genus *Ceutorhynchus* with over 300 species distributed worldwide is in an obvious need of a subgeneric

classification, I provisionally retain this only subgenus in addition to the nominotypical one.

#### MATERIAL AND METHODS

The length of body was measured from anterior margins of eyes to the apex of elytra. Holotype and two paratypes are in the collection of the United States National Museum of Natural History, Washington (USNM), and one paratype, in the Zoological Institute, Russian Academy of Sciences, St Petersburg (ZIN).

### TAXONOMIC PART

Order COLEOPTERA

Family CURCULIONIDAE

Subfamily **CEUTORHYNCHINAE** 

Genus Ceutorhynchus Germar, 1824

Subgenus *Heorhynchus* Korotyaev, 1999

Ceutorhynchus (Heorhynchus) catenulatus sp. nov.

(Figs 1, 2)

Holotype. Male; China, Sichuan: "Szechuen, China, D.C. Graham", "Suifu IV.28 – '28" (USNM).

*Paratypes.* 2 males (USNM, ZIN), 1 female (USNM), same data as for holotype.

Description. Body length 2.2-2.5 mm.

Body black; antennae and tarsi brown, but two apical tarsal segments often bright rufous. Vestiture sparse. Head capsule with sparse very narrow, sublinear or hair-like subrecumbent white scales. Punctures on pronotum with similar but longer scales, median sulcus and sides with diffuse stripes of broader linear to narrow-lanceolate white scales. Granules on elytral intervals bearing subrecumbent brown and white narrow, almost hair-like scales forming no

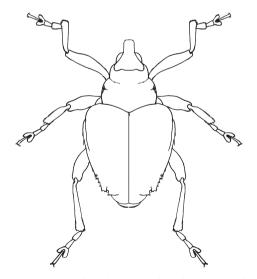
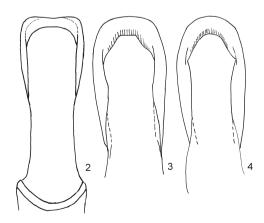


Fig. 1. Ceutorhynchus (Heorhynchus) catenulatus sp. nov., male, holotype.

pattern. Suture with a few short, narrow white scales behind scutellum. Striae bare. Punctures on underside bearing lanceolate white scales denser along midline. Femora moderately densely covered with white linear and narrow-lanceolate scales as well as with brown linear scales; posterior surface of femora and tibiae with dense white lanceolate scales; rest of tibiae surface and tarsi with hair-like white and brown scales.

Male. Rostrum 1.40-1.48 times as long as pronotum, 1.4 times as broad as apical part of fore tibia, rather strongly curved (somewhat more strongly in basal part), almost cylindrical and parallel-sided in basal half and slightly flattened in apical half (slightly tapering toward apex in lateral view), weakly narrowing between antennal attachment and slightly widened apex. Dorsal surface in basal part weakly lustrous or almost matt, densely striolate, with two rows of fine elongate punctures along median strip slightly raised near base to form vestigial median carina. Sides of dorsum with rows of coarser punctures more or less deeply engraved and separated by wrinkles but lacking well-defined carinae. Apical part of rostrum lustrous, with moderately dense elongate punctures. Antennae inserted at 0.37-0.45 length of rostrum from apex. Scape club-shaped swollen in apical quarter. Funicle 7-segmented, noticeably



Figs 2–4. Ceutorhynchus (Heorhynchus) spp., aedeagus dorsally; 2 - C. catenulatus sp. nov., holotype; 3 - C. ibukianus; 4 - C. subcoeruleipennis.

thickening apically; second segment about as long as first one; rest segments successively shortening: sixth segment slightly longer than broad, seventh segment barrelshaped and slightly transverse. Pubescence on funicle moderately long, but weakly raised. Club oblong-ovate. Eves mediumsized, rounded triangular, moderately convex; in lateral view, their dorsal margins slightly raised above frons level. Frons weakly to moderately depressed across its entire width, flattened in cross-section. Temples slightly depressed in upper part; vertex narrowly convex at some distance behind eyes, with fine median carina in two of four available specimens. Head capsule weakly lustrous, with dense medium-sized, sharply outlined, rather deep punctures.

Pronotum 1.27-1.42 times as broad as long, with base shallowly to moderately deeply bisinuate or weakly obtuse-angularly produced posteriorly in middle; sides in basal part subparallel, slightly rounded, or noticeably diverging toward large, acute, strongly projecting lateral tubercles; thereafter moderately strongly convexly converging to deep constriction separating long apical part. Anterior margin weakly raised, with shallow to moderately deep median emargination limited by two angulations. Disc moderately convex, with median sulcus very wide and shallow at base, partly or completely smoothened in middle of disc. and foveiform deepened behind and in apical constriction. Medial part of disc along sulcus slightly more strongly convex and separated from lateral tubercles by shallow depressions. Punctation on disc very coarse and deep, punctures of varying size separated by flat narrow intervals, matt on most of disc and lustrous in places on convex areas along median sulcus. Postocular lobes large, rounded. In front view, apical margin thickened at mid-height of sides, 1.5 times as wide there as in dorsal part. Corner between ventral end of postocular lobe and keel before coxae very deeply depressed. Scutellum narrow, elongate, flat or convex to varving degree.

Elvtra 1.06-1.09 times as long as wide, with strongly convex humeral prominences. weakly roundly widening along short distance behind latter, afterwards first moderately, then strongly narrowing toward moderately convex, obtuse apical prominences. Disc strongly and rather evenly convex except for flattened or shallowly depressed postscutellar area. Striae very broad and deep, deepening and narrowing toward base, with margins rounded in cross-section; punctures in striae separated by not less than own diameter. Intervals ca. 1.5 times as broad as striae, subcostiform, irregularly covered with small elongate glabrous granules pointed posteriorly. Larger granules in apical part of discal intervals and on sides tending to form more or less regular row along midline of an interval. Three to five largest granules in apical part of 4-8th intervals with very sharp attenuate apex but forming no transverse ridge. Surface of elvtra matt due to shagreened microsculpture.

Legs rather long and slender, coarsely rugosely punctate; femora weakly widened distal to middle and forming weak angular prominence bearing bunch of white scales. Hind femur not conspicuously differing in width from middle femur and only slightly wider than fore femur. Tibiae moderately long, parallel-sided in middle part, slightly widening toward apex; fore tibia obsoletely outcurved apically, non-mucronate, Middle and hind tibiae noticeably outcurved apically and provided with sharp mediumsized mucro pointed medio-posteriorly. Spines in apical comb of fore tibia becoming longer toward outer apical angle and barely extending on outer surface of tibia. Apical comb on hind tibia short, convex. rounded, with dense fine pale spines. Tarsi moderately long; first segment of fore and middle tarsus about 1.5 times; first segment of hind tarsi about twice as long as broad; second segment almost 1.5 times as long as broad; third segment of fore tarsus as long and almost twice as broad as second segment. Claw-segment slender, weakly widening apically, by 0.6 of its length extending beyond lobes of third segment; claws moderately long, moderately diverging, finely dentate in basal 0.4.

Punctation of underside coarse, dense along midline and sparser on sides of mesoand metathorax; middle part of mesepimera often impunctate. Apices of mesepimera obtusely ridge-shaped. Metepisterna rather strongly convex. Metasternum strongly swollen between middle and hind coxae, ridge-shaped hanging over hind coxae. First ventrite rather deeply depressed between coxae (depression narrowing posteriorly), and second ventrite shallowly depressed only along midline; third and fourth ventrites flat medially; anal ventrite along almost its entire length with broad shallow transverse depression limited by weak prominences raising to apical margin of ventrite (depression densely covered with white entire scales at anterior margin of ventrite, and with vellowish plumose scales in posterior part of ventrite). Sides of depression and posterior margin of anal ventrite with dense longer semi-erect hairs. Pygidium moderately transverse, weakly convex, coarsely punctate, with deep fovea occupying half-length and about one-third width of pygidium; bottom of fovea almost impunctate; sides of fovea densely covered with vellow hairs hanging over fovea. Aedeagus as in Fig. 2.

Female. Rostrum 1.52 times as long as pronotum, strongly and evenly curved, subcylindrical, parallel-sided, weakly lustrous, finely striolate in basal part and with sparse fine elongate punctures and strioles in apical part. Antennae inserted at 0.41 length of rostrum from apex. All tibiae straight, nonmucronate. Venter weakly evenly convex at base; median part of fourth ventrite somewhat declivous and impunctate; anal ventrite with small round median depression in apical half densely covered with white scales. Pygidium small, flat, matt, with shallow transverse fovea occupying half of its length and about half of its apical width. Margins of fovea densely covered with yellow hairs hanging over fovea.

Comparison. This is the third known species of the subgenus Heorhynchus formerly including C. ibukianus Hustache, 1916 (from Japan and Korean Peninsula), and C. subcoeruleipennis Voss, 1958 (described from China, Fujian Province, "Kuatun") of which C. philippovi Korotvaev, 1980 (described from the south of the Russian Far East) is a junior synonym. The new species clearly differs from the two aforementioned species in the smaller size (C. subcoeruleipennis has body length above 2.8 mm, and C. ibukianus is still larger), coarsely catenulate elytra, deeper median sulcus and sharper lateral tubercles on the pronotum, usually rufous antennae and tarsi, and truncate apically aedeagus (see Figs 2-4). From C. ibukianus it differs, in addition, in the black colour without clear blue sheen

# Ceutorhynchus (Heorhynchus) subcoeruleipennis Voss, 1958

= C. philippovi Korotyaev, 1980, syn. nov.

*Remark.* Examination of the type material of *C. subcoeruleipennis* in the A. Koenig Museum, Bonn, has revealed the synonymy of this name with *C. philippovi*.

#### **ACKNOWLEDGEMENTS**

I greatly appreciate providing the material of the new species for examination by A.S. Konstantinov (USNM) and help in processing the figures by M.G. Volkovitsh (ZIN). The study was supported by the Russian Foundation for Basic Research (project No. 13-04-01002a) and Ministry of Education and Science of the Russian Federation.

## REFERENCES

### Alonso-Zarazaga M.A. & Lyal C.H.C. 1999.

A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae). Barcelona: Entomopraxis. 315 p.

Colonnelli E. 2004. Catalogue of Ceutorhynchinae of the world, with a key to genera (Insecta: Coleoptera: Curculionidae). Barcelona: Argania edition. 124 p.

- Korotyaev B.A. 1980. Contribution to the knowledge of Ceutorhynchinae (Coleoptera, Curculionidae) of Mongolia and the USSR. *Nasekomye Mongolii* [Insects of Mongolia], 7: 107–282. (In Russian).
- Korotyaev B.A. 1996. A key to genera of the tribe Ceutorhynchini. *In*: Egorov A.B., Zherichin V.V. & Korotyaev B.A. Sem. Curculionidae Dolgonosiki. *Opredelitel' nasekomykh Dal'nego Vostoka Rossii* [Key to the
- insects of the Russian Far East], **3** (Coleoptera, 3 Supplement): 455–468. Vladivostok: Dal'nauka. (In Russian).
- Voss E. 1958. Ein Beitrag zur Kenntnis der Curculionidae im Grenzgebiet der Orientalischen zur Paläarktischen Region (Col., Curc). Die von J. Klapperich und Tschung Sen in der Provinz Fukien gesammelten Rüsselkäfer. Decheniana Beihefte, 5: 1–139.

Received June 6, 2013 / Accepted June 14, 2013